

Abstract

The invention relates to a code-tracking method and a  
rake receiver for CDMA communication systems of low  
complexity yielding stable tracking. Received signal are  
distributed to a plurality of receiver fingers of a rake  
receiver. Each receiver finger  $i$  is assigned to a signal  
path of the transmitted signal which is subject to phase  
shift and power dissipation due to reflection, diffraction  
and scattering. According to the invention in each receiver  
finger  $i$  an estimation of the timing delay  $\hat{\tau}^{(i)}$  is provided  
and interference from other signal components  $j$  are  
subtracted from signal components of the current signal path  
 $i$  ( $i \neq j$ ) yielding a reliable estimated timing delay  $\hat{\tau}$ .

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